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March 22, 2022

**NOTICE OF AMENDMENTS TO A CODE TO FACILITATE CONNECTION OF
DISTRIBUTED ENERGY RESOURCES**

AMENDMENTS TO THE DISTRIBUTION SYSTEM CODE

BOARD FILE NO.: EB-2021-0117

**To: All Licensed Electricity Distributors
All Licensed Electricity Generators
All Licensed Electricity Storage Companies
All Participants in Consultation Process EB-2019-0207
All Other Interested Parties**

The Ontario Energy Board (OEB) is giving notice under section 70.2 of the *Ontario Energy Board Act, 1998 (Act)* of final amendments to the Distribution System Code (DSC) to facilitate the connection of distributed energy resources (DERs). These amendments, which will come into force on October 1, 2022, will reduce the overall timeline and provide clarity and consistency in the process for connecting a DER to an electricity distributor's system.

A. Background

On August 5, 2021, the OEB issued a Notice of Proposal to Amend the Distribution System Code (August Notice) in which it proposed a number of amendments (August Proposed Amendments) to the DSC that were aimed at improving the connection process for DERs, including:

- New definitions in the DSC to reflect a new approach to categorizing facilities as either exporting or non-exporting based on power flow at the connection; an exemption from connection requirements for load displacement generation would be removed as it was no longer appropriate under this revised paradigm. A revised process would standardize and provide improvements for the exchange of information at the preliminary consultation stage.

- New provisions would require the use of template forms for the Preliminary Consultation Information Request by a customer; the Preliminary Consultation Report prepared by the distributor in response to the application; and the Connection Impact Assessment Application (as those terms are used in the August Notice) to be submitted to distributors. Connection requests involving a host distributor and/or transmitter would follow a streamlined process that allows for concurrent assessment steps, which is expected to reduce the overall time for responding to a DER connection proposal and allow customers to more quickly connect their DERs.
- A new section would clarify that cost responsibility rules apply to connection of all DERs. This is not a change to the rules for cost responsibility; rather, it is a recognition that DERs have potential to create revenues for distributors that should be considered in the determinations of capital contributions.
- Several detailed process steps would be removed from the DSC and transferred to a newly-established DER Connection Procedures (DERCP) document.

In the written comments on the August Notice, stakeholders expressed broad support for the contemplated revisions to the DSC and the establishment of the separate DERCP, while also providing comments on both the amendments and DERCP. The OEB reviewed stakeholder submissions and revised certain portions of the August Proposed Amendments, while also determining that other portions of the August Proposed Amendments did not require revision. Accordingly, the OEB issued a Notice of Revised Proposal on December 20, 2021 (December Notice) that included the following (December Proposed Amendments):

- Revisions to select definitions.
- Addition of a new section, designated section 6.2.1A, to provide clarity on the treatment of storage facilities for the purpose of connections.
- Revision to section 6.2.31, confirming applicability of DSC Chapter 3 on cost responsibility.
- Clarifications related to intake process for micro-embedded generation facility connection requests.
- Clarifications related to timelines for the performance of Connection Impact Assessments for facilities when a host distributor is required to perform an assessment.
- Not proceeding with changes to 6.2.16 related to steps required to obtain a detailed cost estimate for a connection.

- Revision to section 6.2.20, to indicate that the Electrical Safety Authority (ESA) may issue a temporary Connection Authorization to a utility, prior to a Connection Authorization.

The OEB invited written comments on the December Proposed Amendments that were revised relative to the August Proposed Amendments, and indicated that, with the exception of the proposed revisions, it intended to adopt as final the Amendments to the DSC as set out in the August Proposed Amendments. The OEB received 15 written comments on the December Proposed Amendments (all of which are posted on the [webpage for this initiative](#)).

Having considered the submissions, the OEB is now making the amendments to the DSC as set out in the December Proposed Amendments final, with one non-material change discussed in Section B. The final amendments are set out in Appendix A (blackline relative to the existing DSC) and Appendix B (final text for DSC) of this Notice.

Stakeholders, in their submissions in response to the December Notice, also provided comments on the DERCP. The OEB has made a number of revisions to the DERCP to reflect comments received from stakeholders. For information, three additional appendices are provided in relation to the DERCP: Appendix C is a comparison document that shows all DERCP revisions relative to what was provided with the December Notice; Appendix D is a document that shows the “clean” version of the DERCP; and Appendix E contains a summary of stakeholder comments on the version of the DERCP accompanying the December Notice, and how they are addressed. As explained in the December Notice, the DERCP does not form part of the DSC and is not subject to the requirements of section 70.2 of the Act. As discussed in the December Notice, the OEB will establish a process for amending the DERCP.

B. Stakeholder Comments

The OEB has considered the comments of stakeholders on those proposed revised amendments identified in the December Notice.

Definition of Distributed Energy Resource (DSC s. 1.2 as Proposed in August Notice)

In the August Notice, the OEB proposed to include a definition of “Distributed Energy Resource” in section 1.2 of the DSC. In the December Notice, the OEB advised that it would no longer include a DER definition within the DSC, and that it would instead be included in the DERCP, where the term is used.

In commenting on the December Notice, a distributor expressed a concern that the definition for DER no longer appears in the DSC. The OEB is not persuaded that a change is required; the term DER is, at present, only used in the DERCP, which is why its inclusion within the DERCP is appropriate.

Some stakeholders reiterated concerns related to the breadth of the definition for DER, suggesting that even non-controllable loads would be encompassed by the definition. In the December Notice, the OEB addressed these concerns and in particular noted that the definition is only used in the DERCP which applies to the connection of generating and storage facilities to a distribution system.

Definition of Restricted Feeder and its Application (DSC s. 1.2 and DSC s. 6.2.3)

The December Notice contained a revised proposal for the definition of “Restricted Feeder” that clarified that a feeder may be designated as restricted when it does not have additional short circuit capacity available to allow a connection. This revision was proposed in response to stakeholder feedback that original language referring to “zero capacity” did not recognize that feeders are not typically operated in a way that they have zero capacity.

Developers were broadly supportive of the change and noted that the designation of a feeder as “restricted” based only on short circuit criteria would permit developers to continue to explore connection opportunities where there may be capacity limitations based on other criteria where remediations are expected to be more practical. Distributors expressed a desire to allow for a broadening of the criteria to be used to designate a feeder as restricted. In the December Notice, the OEB stated that the revision is generally in alignment with discussions in the DER Connections Review Working Group and any broadening should follow from consideration by that group.

A distributor association asked for guidance on how system configuration changes would be expected to be presented in the restricted feeder list. The OEB is of the view that the definition for “Restricted Feeder” is sufficiently clear in this regard. To the extent that there may be configuration changes, due either to alternate switching configurations or to planned modifications to the distribution system, the OEB would expect such changes to be conveyed to a connection applicant through the Preliminary Consultation Report.

Applicability of Chapter 3 to DERs (DSC s. 6.2.31)

The December Notice contained revisions to section 6.2.31 in response to stakeholder comments, simplifying the clause and removing a reference to non-exporting connections in order to remove ambiguity regarding whether the section also applied to exporting connections. A stakeholder raised a question about the applicability of the revised section to all DERs. The OEB’s intention with the revised section 6.2.31 is to

confirm that DSC provisions on cost responsibility (DSC Chapter 3) apply to DERs, including those facilities that are connected directly or indirectly to a distribution system.

Micro-Embedded Generation Facility Processing (DSC s. 6.2.5 & 6.2.6)

The December Notice contained revisions to section 6.2.5 to clarify that the Micro-Embedded Generation Facility Connection Agreement would be used as part of the intake process for a request to connect a micro-embedded generation facility.

A distributor raised a concern related to whether a distributor may use its own forms to collect information it felt may be required to process a connection request for a micro-embedded generation facility. Another distributor indicated that the use of the Agreement as an application to connect may lead to confusion. The OEB confirms that a distributor may use its own form as part of the intake process. This is clear in section 5.2 of the DERCP which provides that a distributor may request “connection information as required”, and a distributor is therefore permitted to use its own forms to process requests related to micro-embedded generation facilities.

A distributor raised a concern about whether it was sufficiently clear that a distributor could reject a micro-embedded generation facility connection request on capacity grounds. The DERCP in clauses 5.3.2 and 5.3.4 provides for potential distributor rejection of such a connection request.

A distributor indicated that the Micro-Embedded Generation Facility Connection Agreement may be referencing a dated standard. The OEB acknowledges the feedback and will request the DER Connections Review Working Group review and provide recommendations on this item.

A distributor repeated a request to have the ability to charge customers a fee for the performance of a Connection Impact Assessment for micro-embedded generation facility connection requests. This issue will also be referred to the DER Connections Review Working Group for consideration.

The OEB is making a non-material revision to DSC section 6.2.6, where a reference to “process and forms” in the DERCP will be revised to refer to the “process” contained in the DERCP, to ensure the section does not inadvertently lead to interpretation that the process and forms are distinct from one another. This approach is consistent with sections 6.2.12 and 6.2.23.

CIA Timelines for Mid-Sized and Large Generation Facilities (DSC s. 6.2.13)

In response to stakeholder comments, the December Proposed Amendments explicitly indicated that a further 15 days would be allowed for completion of studies in cases where a host distributor assessment is required, to allow for up-front activities that may

be required for an embedded distributor to make an application to a host distributor for a host distributor assessment to be initiated. The DSC revision was consistent with DER Connections Review Working Group recommendations.

In response to the December Notice, a number of distributors repeated a concern that, in addition to the 15 days that were allowed for up-front coordination when a host distributor assessment is required, an additional five days should be provided at the conclusion of the study period in order to allow the host distributor and embedded distributor to consolidate results prior to a release of results by the embedded distributor to the applicant. As the OEB noted in the December Notice, it is expected that the embedded and host distributors reviewing a given connection would coordinate and communicate over the course of the study period in order to ensure the overall DSC timeline is respected.

A stakeholder again questioned whether flexibility would be permitted for cases where a distributor could not meet prescribed timelines. The intent of these amendments is to create consistency and certainty for customers about the connections process, and the OEB considers that setting prescribed timelines is key to assist in achieving this objective.

Cost Estimates (DSC s. 6.2.16)

The December Proposed Amendments reverted to the existing language in section 6.2.16 related to cost estimates, so that no amendments would be made to this section. The OEB understands the DER Connections Review Working Group is reviewing matters pertaining to cost estimates.

Stakeholders reiterated a concern that the existing DSC section 6.2.16 did not contain a clear sequence of events in order to obtain a detailed cost estimate. As explained in the December Notice, the OEB is not persuaded that a DSC amendment is required at this time. The DERCP provides additional clarity related to the steps for a detailed cost estimate.

A distributor suggested that, for a mid-sized or large embedded generation facility, the DSC does not obligate a distributor to provide a cost estimate to a connection applicant at the same time that it provides a Connection Impact Assessment. The OEB understands from earlier comments on the August Notice that it is standard utility practice for the distributor to provide a preliminary cost estimate at the time the Connection Impact Assessment is provided for mid-sized and large embedded generation facilities.

Authorization to Connect (DSC s. 6.2.20)

The December Proposed Amendments included a revision to reflect stakeholder feedback that the Electrical Safety Authority may issue a temporary Connection Authorization to a utility in relation to a connection, prior to issuing a Connection Authorization. In response to the December Notice, stakeholders were generally supportive or provided no further comment in relation to this revision.

A stakeholder noted that a distributor may require completion of commissioning activities prior to entering into a Connection Agreement, and that these commissioning activities may themselves require a grid connection. The OEB is not persuaded that a revision is required to the DSC in relation to the sequence of activities for commissioning as this can be addressed between the distributor and the customer.

Other Comments

In response to the December Notice, the OEB also received comments in relation to certain amendments that were unchanged from the August Notice and which the OEB indicated in the December Notice were considered final. Those comments related to the following amendments:

- The limit and cost recovery considerations for the Preliminary Consultation Report (DSC sections 6.2.9 and 6.2.9.1).
- The existence of provisions for Capacity Allocation Exempt Small Embedded Generation Facilities (in relation to DSC section 6.2.12).
- The appropriateness of capacity deposits (in relation to DSC section 6.2.18).

The OEB has reviewed the issues raised by stakeholders and considers that they were fully addressed in the December Notice. Some stakeholders provided comments on new matters which the OEB has determined are beyond the scope of the proposed amendments under consideration in this process.

C. Anticipated Costs and Benefits

The OEB previously addressed concerns raised by a distributor group in relation to anticipated costs. As indicated in both the August Notice and December Notice, the OEB expects the costs of implementing the changes to be minimal. Distributors will have to adopt the proposed template forms and post them to their websites. Distributors will need to make other changes to their websites, including posting full connection packages. The OEB expects distributors will incur some initial costs to compile lists of restricted feeders, and distributors will have to make some internal process adjustments to update and post the list on a regular basis.

The OEB expects that any costs distributors may incur will be significantly exceeded by the benefits that will come from the increased efficiency for both customers and distributors from the improved and streamlined processes and ability to undertake assessments on a concurrent basis. These anticipated benefits are explained further below.

The amendments build on the recommendations of the DER Connections Review Working Group to improve the connection process. The OEB believes the amendments will provide clarity and consistency in processes both from project to project and across distributors. More particularly, as the OEB stated in the prior Notices, it expects that the amendments will achieve the following beneficial outcomes:

- Removing the exemption for load displacement generation facilities will clarify that these types of projects need to be assessed for their impact on the distribution system and thus provide a level of certainty to both proponents and distributors.
- Changing the preliminary consultation meeting in section 6.2.9 to a written process is expected to save time and money for both the proponents and distributors since the process is more efficient and involves fewer personnel with less technical expertise.
- The requirement for a restricted feeder list will help proponents avoid pursuing projects that are highly likely to be rejected, saving both the proponent and the distributor time and money.
- The use of standardized application forms and report templates specified by the OEB will bring consistency across the province to the DER connection process, allowing both proponents and distributors to reduce costs through process and information consistency. It is also expected to reduce the costs for smaller distributors that rarely receive connection applications, and that will be able to rely on a prepared form. Moreover, standardization in the forms will serve as a learning tool that supports audits, promotes problem solving, and facilitates the development of mistake-proofing tools such as checklists or time stamps. Finally, the use of standardized forms will expedite information sharing between embedded and host distributors, reducing the risk of back-and-forth between utilities when multiple entities are required to perform an assessment.
- The emphasis on concurrent reviews by distributors and hosts and/or transmitters should reduce review time significantly.
- The proposed changes should result in savings in time, effort and costs for both proponents and distributors.

D. Coming into Force

As noted above distributors will need to make certain changes to systems and processes as well as develop their restricted feeder lists, therefore the amendments to the DSC will come into force on October 1, 2022.

E. Cost Awards

Cost awards related to this consultation will be addressed in separate correspondence.

If you have any questions regarding this Notice or the final amendments to the DSC, please contact IndustryRelations@oeb.ca. The OEB's toll-free number is 1-888-632-6273.

DATED at Toronto, **March 22, 2022**

ONTARIO ENERGY BOARD

Nancy Marconi
Registrar

Attachments:

- Appendix A — Final Amendments to the Distribution System Code – Comparison Version to Existing Code
- Appendix B — Final Amendments to the Distribution System Code – “Clean” Version
- Appendix C —DERCP – Comparison Version to August and December Notices
- Appendix D —DERCP – “Clean” Version
- Appendix E — Summary of Stakeholder Comments on DERCP

Appendix A

to

**Notice of Amendments to the
Distribution System Code**

March 22, 2022

EB-2021-0117

**Final Amendments to the Distribution System Code –
Comparison Version to Existing Code**

[see separate document attached]

Appendix B

to

**Notice of Amendments to the
Distribution System Code**

March 22, 2022

EB-2021-0117

Final Amendments to the Distribution System Code – “Clean” Version

[see separate document attached]

Appendix C
to
Notice of Amendments to the
Distribution System Code
March 22, 2022
EB-2021-0117

Distributed Energy Resource Connection Procedures – Comparison Version

Note: The DERCP does not form part of the DSC. This Appendix is provided for information. Yellow highlights indicate revisions relative to the DERCP provided with the December Notice; red and green text indicate revisions relative to the DERCP provided with the August Notice.

[see separate documents attached]

Appendix D
to
Notice of Amendments to the
Distribution System Code
March 22, 2022
EB-2021-0117

Distributed Energy Resource Connection Procedures – “Clean” Version

Note: The DERCP does not form part of the DSC. This Appendix is provided for information.

[see separate documents attached]

Appendix E
to
Notice of Amendments to the
Distribution System Code
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Summary of Stakeholder Comments on Distributed Energy Resource Connection Procedures

Note: The DERCP does not form part of the DSC. This Appendix is provided for information.

[see separate documents attached]